# COMMUNICATIONS & SECURITY

## CENTER ON OPTICAL WIRELESS APPLICATIONS



One of the NSF's Industry/University Collaborative Research Centers, Center on Optical Wireless Applications is a NSF-funded collaboration between the Pennsylvania State University and the Georgia Institute of Technology. The center seeks industry partners who are also dedicated to the innovation, development, and improvement of optical and wireless applications used in communications, networking, imaging, positioning, and remote sensing.

Representatives will discuss research and highlight projects such as LEDs used for communications.

Booth #73008 | Erin Stinchcomb | elk118@psu.edu

## FIDELITY-COMTECH



Fidelity Comtech designs and manufactures innovative, high performance, wireless networking products focused on the broadband wireless networking marketplace.

At CES, Fidelity Comtech will showcase an innovative networking solution that enables wireless networks to automatically adapt their coverage to identify and fix issues related to coverage and interference. This technology is being deployed today in mission-critical Wi-Fi networks and can be applied to a wide variety of other applications, including cellular networks.

Booth #75311 | **Joe Carey** | joe.carey@fidelity-comtech.com

## OMNISPEECH LLC





OmniSpeech<sup>™</sup> develops innovative single channel noise reduction technology that aims to revolutionize the enhancement of voice quality in speech-enabled applications and in mobile devices.

At the OmniSpeech™ booth we will demonstrate the effectiveness of our technology in suppressing background noise and enhancing speech that originates from a noisy environment. Speak and be understood.™

Booth #74510 | Nadia Sa'd Mulaire | nadia.sa'dmulaire@omni-speech.com | @OmniSpeech

## XANDEM TECHNOLOGY LLC



Xandem systems can detect and locate people through walls and obstructions, and does not require the person being tracked to carry any form of device.

Xandem will present a tomographic motion detection system capable of sensing motion with complete coverage with an accompanying internet gateway and Web application.

Booth #74406 | Missy Larsen | 801.949.9199 | mlarsen@xandem.com | @XandemTech

# EDUCATION & ENTERTAINMENT

## BAROBO



Barobo, Inc. aims to make robotics more affordable, adaptable, reconfigurable, and reprogrammable for education, research, and industrial applications.

Robots are the next shop class, which can inspire students to pursue careers in science and engineering. Visit the booth to see our latest models.

Booth #74310 | Graham Ryland | gryland@barobo.com | @BaroboRobotics

## GIGAVATION INCORPORATED



Gigavation develops cybersecurity technologies for consumers, corporations and public-sector. Its USB port and embedded solutions secure-computers, mobile devices, networks and industrial control systems against attacks and data loss.

Gigavation has designed a disruptive patented new technology, GigaShield<sup>TM</sup>, that uses a hardware/software hybrid approach to secure the USB port.

Booth #75508 | Piyush Srivastava | 972.503.0500 | contact@gigavation.com

## IXM CORPORATION



UndergroundMusic.fm is a new service that enables people to easily play and share underground music in the cloud.

The UndergroundMusic.fm booth will have explanatory graphics and several iPads running the system for CES attendees to explore and interact with the service.

Booth # 74506 | Max Acchione | info@undergroundmusic.fm | @UndrgrndMusicFM

#### NUMEDEON INC.



Numedeon, Inc. is a digital learning company specializing in blending online social gaming and simulation-based learning with real-world learning environments.

Come to Numedeon's booth to see how students engage with standards-based math and science content through curriculum tied to games and immersive experiences in the virtual world of Whyville.net.

Booth # 74405 | **James M. Bower** | 210.382.0553 | jim@whyville.net | @superid101

## SECOND AVENUE LEARNING



Second Avenue Learning, a women-owned educational technology company, develops custom software such as interactive modules, serious games and learning management systems for education market leaders such as W.W. Norton, Pearson and McGraw-Hill.

The game combines educational scaffolding with entertainment quality 3-D graphics to promote scientific inquiry and knowledge transfer. Stop by the booth for a demo.

Booth # 74407 | **Stephen Nazarian** | 585.975.9445 | stephen@secondavenuelearning.com | @2ndAveLearning

## ZOOZ MOBILE INC.



ZOOZ Mobile brings novel, interactive and social music-making experiences to everyone.

ZOOZbeat is the first Mobile Music Studio, an integrated mobile and web-based studio for music creation, interaction and sharing for individuals and groups, musicians and non-musicians.

Booth #74403 | Charles Spencer | 770.378.8115 | charles@zoozmobile.com | @ZOOZbeat

## energy & environment

## **A**CCU**S**TRATA



AccuStrata specializes in real-time monitoring, predictive modeling of processes and events and adaptive dynamic process control. New applications include monitoring and fault detection in electric power lines as well as in-line or distributed characterization of color and product quality control based on color.

At CES, we will display information about key applications of our technology for model predictive dynamic control in several key emerging clean technology industries, such as high-brightness LED, solar and Smart Grid industries.

Booth #74411 | George Atanasoff | 301.314.2116 | gatanasoff@accustrata.com | @AccuStrata

## **BONSAI LIGHT**



BonsaiLight is a Berkeley-based green technology start-up company that designs and builds energy-harvesting consumer electronics devices powered by users' own micro-kinetic energy.

BonsaiLight's line of energy-efficient products includes a battery-free remote switch and its elegant companion lamp that produces a relaxing, ambient glow, and a number of other devices will be introduced this year.

Booth #74502 | Richard Berman | 415.359.4906 | Richard@VerbFactory.com

#### IMPRINT ENERGY



Imprint Energy is developing battery technology to address the power needs of small portable electronics and enable a multitude of wearable technology and wireless sensing and communication applications.

The booth will demo wearable and wireless device prototypes enabled by Imprint Energy's ultrathin, flexible, rechargeable batteries.

Booth # 74203 | **Brooks Kincaid** | info@imprintenergy.com | @imprintenergy

## **SMARTER SHADE**



SmarterShade is an integrated shading system that allows any window to go from clear to dark with the touch of a button. The SmarterShade technology will fundamentally change how users interact with their window systems to control glare, privacy and reduce energy use in a building.

At CES, SmarterShade will show its window treatment solution, similar in concept to the emerging technology being called "smart windows," but designed to be more durable at a much lower cost than smart windows.

Booth # 75109 | **Mike Stacey** | 312.375.2867 | michael.stacey@smartershade.com | @smartershade

## ADVANCED SELF-POWERED SYSTEMS OF INTEGRATED SENSORS AND TECHNOLOGIES (ASSIST)



The NSF-sponsored ASSIST Center is developing nano-enabled, ultra-low power, wearable health and environment monitoring devices, powered by energy harvested off the body and for the purpose of enabling active management of wellness and prevention of chronic disease. ASSIST is accelerating environmental health research and informing environmental policy, while individual technologies benefit tangential markets.

ASSIST will demonstrate subsystem components for body heat energy harvesting, physiological sensing and ultra-low power radio communication

Booth # 73010 | **Tom Snyder** | 919.272.3663 | tdsnyder@ncsu.edu | @ASSIST\_NCSU

## CENTER FOR SENSORIMOTOR NEURAL ENGINEERING

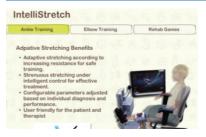


The Center is designing closed-loop neural-interactive systems that help restore function and mobility to patients with neuromuscular deficits and can also enhance human computer interactions for non-disabled users.

Arm-wrestle virtually using brain power with WrestleBrainia 3000—geeks can beat the jocks—and learn how we're combining neural sensors with other biosensors for a range of human computer interactions.

Booth # 73009 | **Mary Guiden** | 206.854.3786 | mguiden@uw.edu

#### REHABTEK LLC



Rehabtek LLC specializes in medical rehabilitation robotics optimized for patients who have suffered a stroke, or for those who are living with cerebral palsy. We develop advanced rehabilitation technologies for people with neurological disorders or orthopedic injuries.

This year we will present the rehabilitation robots for the elbow/ankle joints, as well as elliptical rehabilitation devices for injury risk analysis and prevention.

Booth # 73111 | **Andy Zhang** | 847.924.8273 | zhang8128@gmail.com

### SHEEPDOG SCIENCES INC.



Sheepdog Sciences leverages compact and wearable hardware, physiological monitoring, and data-discovery in a patented closed-loop architecture to bring cutting-edge brain research into the home. Our successful beta study was the first to show memory enhancement outside of a laboratory setting and is the foundation for our first commercial product release, next-year.

Sheepdog Sciences will show off an early version of the wearable sleep sensor used in our groundbreaking memory boosting system.

Booth #74413 | Alexander Butterwick | alex@sheepdogsciences.com | @sheepdogsci

#### SMART LIGHTING



The Smart Lighting ERC is developing new technologies and applications for solid-state lighting to improve health, safety, productivity and energy efficiency.

The booth will showcase a prototype of modified Google Glass<sup>™</sup> that provides personal health insights by collecting light exposure and biometric data of the wearer, transmits it to the cloud, where a web service applies big-data analytics to turn the information into actionable advice, and the delivery of location-based content to iPads and other mobile devices via ByteLight-enabled LEDs.

Booth # 73013 | **Silvia L Mioc** | 303.818.1303 | miocs@rpi.edu | @smartlight\_erc

## VERISTRIDE INC.



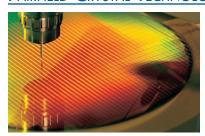
Veristride provides an integrated shoe insole/smartphone/analysis solution that gives users their own information about their movement abilities, including real-time information and feedback.

Veristride will unveil a next-generation insole, packed with sensors, smarts, and power with no external connections or components, which could help lower-limb amputees reduce limp.

Booth #75309 | Stacy Bamberg | 801.898.9445 | stacy@veristride.com | @Veristride

# MATERIALS, MANUFACTURING & ROBOTICS

### FAIRFIELD CRYSTAL TECHNOLOGY



Fairfield Crystal Technology has developed proprietary, innovative crystal growth technology that has led to the development of unique crystal products with highly desirable, consistent and repetitive characteristics.

Serving diverse high-tech industries, our crystals have many indispensable applications in a variety of fields: spectroscopy, lasers, microlithography, medical/biophotonics, telecommunications, energy, detection, defense, space water/air treatment and sterilization, among other things.

Booth #74504 | **Shaoping Wang** | swang@fairfieldcrystal.com

## FIVEFOCAL LLC



FiveFocal develops camera systems for next-generation imaging applications, including small optics for thermal IR, specialized stereo camera systems for robotic vision applications, and camera simulation, modeling, and testing software to enable real time validation of camera and lens performance.

FiveFocal will show innovations in camera and software technology for robotic vision, human computer interaction, and future consumer applications.

Booth #74508 | Alan Baron | alan.baron@fivefocal.com

#### INNOVEGA INC.



Innovega is developing proprietary display technology based on eyewear and contact lenses that enhances human vision allowing the wearer to simultaneously access digital media while remaining fully engaged in their normal activities.

At CES, a member of staff will wear contact-lens enabled prototypes of transparent, panoramic, HD eyeglasses and mega-pixel glance-able eyeglasses and will demonstrate mock-ups of launch products.

Booth # 70103 | **Steve Willey** | 425.516.8175 | stevewilley99@gmail.com

# NANOMANUFACTURING SYSTEMS FOR MOBILE COMPUTING AND MOBILE ENERGY TECHNOLOGIES (NASCENT)



NASCENT is an NSF-funded Nanosystems Engineering Research Center focused on developing next generation nanotechnology manufacturing systems to enable future mobile computing devices.

We will be displaying nanostructures on flexible plastic substrates and thin flexible crystalline silicon foils fabricated using NASCENT's unique nanomanufacturing infrastructure.

Booth #73006 | Larry Dunn | 512.422.9471 | larry.dunn@nascent-erc.org | @NASCENT\_ERC

# VORBECK MATERIALS CORP.



Vorbeck Materials Corp. unleashes the boundless possibilities of graphene – producing a wide array of products from flexible, wearable electronic and battery systems to high-strength, high-temperature composites.

Vorbeck plans to launch a full array of the world's first, flexible, wearable, graphene-based products at CES.

Booth #74409 | John Lettow | 202.329.1636 | john.lettow@vorbeck.com | @Vorbeck



FOR MORE INFORMATION CONTACT:

Sarah Bates

703.292.7738

sabates@nsf.gov

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# **National Science Foundation Grantees at Eureka Park**



Company/Center Name	Booth #
NSF SBIR/STTR	75001, 75003
(COWA) Center on Optical Wireless Applications	73008
Accustrata	74411
Barobo Inc.	74310
Bonsai Light	74502
Fairfield Crystal Technology	74504
Fidelity-Comtech	75311
FiveFocal LLC	74508
Imprint Energy	74203
Innovega Inc.	70103-2nd Floor
IXM Corporation	74506
KWJ Engineering Incorporated	70212-2nd Floor
Numedeon Inc.	74405
OmniSpeech LLC	74510
Rehabtek LLC	73111
Second Avenue Learning	74407
Sheepdog Sciences Inc.	74413
Smartershade	75109
Veristride Inc.	75309
Vorbeck Materials Corp.	74409
Xandem Technology LLC	74406
Zooz Mobile Inc.	74403
(ERC) NSF Assist Nanosystems Center at NCSU	73010
(ERC) NASCENT - UT Austin	73006
(ERC) Smart Lighting	73013
(ERC) Center for Sensimotor Neural Engineering	73009